

RPI-109US

PATENT

2621
#4



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Khalid Al-Kofahi et al. : Art Unit: 2621
Serial No.: 10/058,543 : Examiner: To Be Assigned
Filed: January 28, 2002 :
For: METHOD AND APPARATUS
FOR AUTOMATICALLY
TRACING LINE-
STRUCTURE IMAGES

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

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S I R :

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO 1449 submitted herewith. Copies of the listed references are also enclosed.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

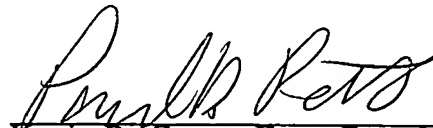
In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

This Information Disclosure Statement is being filed within three months of the filing date of the application. No first Official Action has yet been received and it is presumed that none has yet been mailed.

No fee or certification is required. 37 C.F.R. § 1.97(b).

Respectfully submitted,

RATNER & PRESTIA



Kevin R. Casey, Esq., Reg. No. 32,117
Pamela D. Politis, Reg. No. 47,865
Attorney and Agent for Applicant

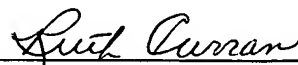
Enclosures: PTO Form 1449;
Copies of References (18)

Dated: April 12, 2002

Ratner & Prestia
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(610) 407-0700

The Assistant Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as priority mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C.
20231 on: April 12, 2002



Ruth Curran

FORM PTO-1449

U.S. DEPARTMENT OF
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(Rev. 2-32)

Information Disclosure Statement by Applicant

(Use several sheets if necessary)

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U.S. PATENT DOCUMENTS

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Exmr Initial	Document Number	Date	Name	Class	Sub Class	Filing Date

FOREIGN PATENT DOCUMENTS

Exmr Initial	Document Number	Date	Country	Class	Sub Class	Translation YES NO

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

	1)	"Rapid Automated Three-Dimensional Tracing of Neurons from Confocal Image Stacks," by K. A. Al-Kofahi, S. Lasek, D. Szarowski, C. Pace, G. Nagy, J. N. Turner, and B. Roysam; IEEE Transactions on Information Technology in Biomedicine; (accepted, to appear) 2002
	2)	"Rapid Automated Tracing and Feature Extraction from Retinal Fundus Images Using Direct Exploratory Algorithms," by A. Can, H. Shen, J. N. Turner, H. L. Tanenbaum, and B. Roysam; IEEE Transactions on Information Technology in Biomedicine, Vol. 3, No. 2; June 1999 (pp. 125-138)
	3)	"Confocal Light Microscopy of Brain Cells and Tissue: Image Analysis & Quantitation," by J.N. Turner, W. Shain, D.H. Szarowski, S. Lasek, B. Sipple, C. Pace, K. Al-Kafahi, A. Can and B. Roysam Acta Histochem. Cytochem.; Vol. 32, No. 1; 1999 (pp 5-11)
	4)	"Confocal Microscopy and Three-Dimensional Reconstruction of Electrophysiologically Identified Neurons in Thick Brain Slices," J. N. Turner, D. H. Szarowski, K. L. Smith, M. Marko, A. Leith and J. W. Swann; Journal of Electron Microscopy Technique, 18; 1991; (pp 11-23)
	5)	"Iterative, Constrained 3-D Image Reconstruction of Transmitted Light Bright-Field Micrographs Based on Maximum Likelihood Estimation," by B. Willis, B. Roysam, J.N. Turner, and T.J. Holmes; Journal of Microscopy, Vol. 169, Pt. 3; March 1993 (pp 347-361)
	6)	"Automated Tracing and Volume Measurements of Neurons From 3-D Confocal Fluorescence Microscopy Data," by A. Cohen, B. Roysam, and J.N. Turner; Journal of Microscopy, Vol. 173, Pt. 2; February 1994 (pp. 103-114)
	7)	"Adaptive 3-D Skeletonization of Noisy Images Using NxNxN Connectivity Analysis Windows and Robust Surface Detection," by W. He, A.R. Cohen, J.N. Turner and B. Roysam; IEEE Transactions on Information Theory for Biomedicine; (accepted, to appear) 2002

Examiner

Date Considered

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FOREIGN PATENT DOCUMENTS

Exmr Initial	Document Number	Date	Country	Class	Sub Class	Translation YES NO

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

		8)	"Three-Dimensional Quantitative Coronary Angiography," by T. Saito, M. Misaki, K. Shirato and T. Takishima; IEEE Transactions on Biomedical Engineering, Vol. 37, No. 8; August 1990 (pp 768-777)
		9)	"Confocal Laser Scanning Microscopy and 3-D Reconstructions of Neuronal Structures in Human Brain Cortex," by P. Belichenko and A. Dahlstrom; Neuroimage, 2; 1995 (pp 201-207)
		10)	"Locating Blood Vessels in Retinal Images by Piecewise Threshold Probing of a Matched Filter Response," By A. Hoover, V. Kouznetsova, and M. Goldbaum; IEEE Transactions on Medical Imaging, Vol. 19, No. 3; March 2000 (pp. 203-210)
		11)	"Detection of Blood Vessels in Retinal Images Using Two-Dimensional Matched Filters," by S. Chaudhuri, S. Chatterjee, N. Katz, M. Nelson, and M. Goldbaum; IEEE Transactions on Medical Imaging, Vol. 8, No. 3; September 1989 (pp. 263-269)
		12)	"Coronary Borders in Complex Images," by M. Sonka, M. Winniford, and S. Collins; IEEE Transactions On Medical Imaging, Vol. 14; March 1995 (pp. 151-161)
		13)	"A Nonsmoothing Approach to the Estimation of Vessel Contours in Angiograms," by M. Figueiredo and J. Leitão; IEEE Transactions on Medical Imaging, Vol. 14, No. 1; March 1995 (pp. 162-172)
		14)	"Adaptive Vectorization of Line Drawing Images," by R. Janssen and A. Vossepoel; Computer Vision and Image Understanding, Vol. 65, No. 1; January 1997 (pp. 38-56)
		15)	Directional Low-Pass Filtering for Improved Accuracy and Reproducibility of Stenosis Quantification in Coronary Arteriograms," by Y. Sun, R. Lucariello, and S. Chiaramida; IEEE Transactions on Medical Imaging, Vol. 14, No. 2; June 1995 (pp. 242-248)

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